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AN EMPIRICAL REVIEW AND ANALYSIS

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CHILD-ABUSIVE PARENTS: AN EMPIRICAL REVIEW AND ANALYSIS

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Studies comparing child-abusive and nonabusive parents on psychological and behavioral dimensions are reviewed to determine relevant distinctions between these populations. Whereas few studies found significant differences between abusers and nonabusers on traditional psychological dimensions, abusers are more likely to report stress-related symptoms, such as depression and health problems, that are linked to the parenting role. Comparative studies of family interactions have also indicated that abusers display reciprocal patterns of behavior with their children and spouses that are proportionately more aversive and less prosocial than nonabusers. Child abuse is viewed as an interactive process involving both parental competence and situational demands. Attention is given to methodological refinement and prevention efforts derived from these findings.

Public awareness of the incidence and severity of child abuse has changed dramatically over the last decade. For example, Time magazine reported that in 1976 only 10% of the American population considered child abuse to be a serious national problem, whereas a recent Louis Harris survey found the concern had risen to 90% (Magnuson, 1983). Despite greater awareness, an unfortunate roadblock to the public's understanding and prevention of child abuse may now exist, in part due to the successful campaigns that shocked the public and lawmakers into first realizing the problem. The communications media (Magnuson, 1983), documentary films (Mary Jane Harper Cried Last Night) and articles in professional journals continue to propagate alarming macabre images of the abusive parent as a seriously disturbed individual, despite the widely held consensus among researchers that perhaps 5% of abusers evidence such extreme symptomatology (Friedman, Sandler, Hernandez, and Wolfe, 1981; Kempe, 1973; Parke and Collmer, 1975; Spinetta and Rigler, 1972). Viewing child abuse as a grossly aberrant characteristic of the parent may seriously restrict both our research and prevention directions, as well as impede efforts to involve more communities in providing important family support services (Alvy, 1975; Garbarino, 1982; Ross and Zigler, 1980).

The significance of child abuse is underscored by both incidence figures and projections of long-term consequences. The National Center on Child Abuse and Neglect (1981) recently estimated that 351 000 children (5.7 per 1000) are physically, sexually, or emotionally abused by their

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caregivers each year, on the basis of substantiated reports nationwide. In contrast to this conservative estimate, Straus, Gelles and Steinmetz (1980) estimated, on the basis of extrapolated data from a representative nationwide survey, that between 1.4 and 1.9 million children each year are at risk of serious injury from a family member. In reference to nonaccidental injury to children, a 1976 report to the Parliament of the United Kingdom (cited in Standing Senate Committee on Health, Welfare and Science, 1980) stated that such acts are the fourth most common cause of death in the first 5 years of life. The significance of the problem, further, may be far greater than physical injuries. Child abuse has been implicated in the etiology of serious antisocial behavior occurring later in life and the perpetuation of family violence through generations (Straus et al., 1980). Alfaro (1981), for example, found that an average of 50% of the families reported for abuse and neglect in New York State had at least one child who was later taken to court for delinquency or being ungovernable. A child who is exposed to the use of violence as a conflict-resolution technique may fail to develop adequate controls of aggression, anger and tension (Emery, 1982; Welsh, 1976). Therefore, child abuse is a concern not only because of physical harm to the child, but because it may have a significant impact upon the child's competence and future behavior.

This article presents a brief overview of research models, definitions and methodology, followed by a critical review of research studies comparing physically abusive and nonabusive families.

CHILD-ABUSE RESEARCH ISSUES

Conceptual Models

Theoretical views of personality functioning led to the early development of a child-abuse model that assumed a distinct personality syndrome or disorder (Melnick and Hurley, 1969; Steele and Pollock, 1968). This supported the assessment of personality attributes indicative of a characterological fault that might cause parents to lose control, isolate themselves from others, distort their children's problems or abilities, or harbor anger and resentment from their own childhood experiences.

The initial conceptualization (often referred to as the Psychiatric Model; cf. Parke and Collmer, 1975) assigns a primacy to cognitive, affective and motivational factors (Merrill, 1962; Oates, 1979; Sloan and Meier, 1983; Zalba, 1967) inherent in the individual adult and relegates contemporaneous, controlling variables to lesser importance. Thus, comparative studies of abusers and nonabusers, following this psychiatric model, have involved measures of psychological problems such as self-esteem, depression and impulse control, to distinguish etiological features of the parent that may be responsible for child abuse. In particular, case reports and controlled studies have addressed hypotheses related to abusive parents' early childhood experiences, coping and defense mechanisms, personality profiles and similar characteristics to support the contention that parental psychopathology is responsible for child abuse.

A contrasting viewpoint of child abuse -- the social interactional model -- places heavy emphasis on bidirectional influences of behavior among family members, antecedent events that may precipitate abuse and consequences that may maintain the use of excessive punishment with the child (cf. Parke and Collmer, 1975; Burgess, 1978; Burgess and Richardson, 1984). These theorists are concerned primarily with the current behavior of the abusive parent in the context of the family and community. In addition, the parents' learning history, interpersonal experiences and intrinsic capabilities are regarded as predisposing characteristics presumed to be important contributors to an abusive episode or pattern (Friedman et al., 1981).

Research instigated by the social interactional model has focused on a microanalysis of interactions between members in abusive and nonabusive families. Parents who abuse their children, according to this analysis, should display rates and patterns of aversive behaviors (i.e., behaviors belonging to the same general response class as aggression) that distinguish them from nonabusers. In return, other family members, especially the target child, are viewed as active participants in an escalating cycle of coercion (Patterson, 1982; Reid, Taplin and Lorber, 1981). One parent may become abusive and another may not as a function of their aggregate child-rearing and interpersonal skills and the frequency and intensity of aversive stimulation impinging on family members from outside or within the family unit (Burgess, 1978).

As a corollary to this model, conditions commonly associated with child abuse are viewed as predisposing factors which in themselves do not produce abusive behavior (Vasta, 1982). The presence of child-aversive behavior and a stress-filled environment are precipitating conditions that interact with parent experience and competence. In response to these events, the parent may experience conditioned arousal and/or negative attributions that serve to mediate an aggressive retaliation (Knutson, 1978; Vasta, 1982). Therefore, social interactional researchers have attempted to measure abusive parents' emotional and cognitive reactions to aversive child stimuli and to investigate the interactional patterns of abusive families.

Although these two conceptual models differ on several dimensions, they share important commonalities and do not necessarily represent radically opposed viewpoints of the abusive parent. Both models represent attempts to understand individual characteristics of abusive parents in relation to prior experience and current demands. The major distinction between these two models is the amount of significance each places on the parent as the principal cause of the abuse. This distinction, in turn, is expressed in the types of questions being addressed by researchers and their choices of assessment devices.

Methodological Considerations

Defining child abuse. The broadest definition of child abuse places it within a continuum of parental behaviors that includes affectionate interactions at one end and extreme abuse at the other (Burgess, 1978; Zigler, 1980). However, for more specific intervention and research purposes the commonly used definition is "non-accidental physical injury (or injuries) that

are the result of acts (or omissions) on the part of parents or guardians that violate the community standards concerning the treatment of children" (Parke and Collmer, 1975, p. 513; see Kempe and Helfer, 1972). Nevertheless, studies have been criticized for using definitions that lack comparability, reliability and operational standards (Besharov, 1981; Friedman, 1975; Plotkin, Azar, Twentyman and Perri, 1981). In response to these concerns, recent investigators have typically adopted a two-fold procedure for defining and selecting physically abusive parents: (a) due to evidence known to the protective service agency, the parent was considered to meet the statutory and community criteria for abuse, and (b) the research staff, in consideration of the protective service report and clinical interview information, judged the parent to have committed an abusive act. This approach has led to consistencies in research studies that reflect an acceptable degree of operational validity (Gelles, 1982). This definitional consensus, however, does not attempt to distinguish chronicity, severity, or complexity of the problem. Child abuse is a notoriously multifaceted disorder and abusive parents differ considerably from one another. Such heterogeneity and multicausality continue to pose a challenge to research endeavors.

Measurement and design restraints. Child abuse does not lend itself to direct observation and thus the task of assessing all of the problem areas is difficult. Several investigators have relied upon psychological tests, specialty questionnaires, collateral report and clinical interviews to diagnose parents and evaluate their psychological adjustment. Investigators interested in family interactions, in contrast, have emphasized direct observations of abuse-analog behaviors, such as negative verbal and physical acts between family members.

Child-abuse researchers are not free to manipulate independent variables or to assign subjects randomly to groups and consequently must rely primarily upon ex post facto designs (Friedman, 1975). The limitations of such designs require several precautions which unfortunately have not been well heeded. A priori predictions of both significant and nonsignificant relations that are expected to occur, as well as careful matching of comparison groups on extraneous variables, are necessary to avoid overinterpretation of findings (Campbell and Stanley, 1966; Plotkin et al., 1981). Further, if the purpose of a study is to discriminate between abusers and nonabusers on particular dimensions, it is essential that background variables that might confound interpretation be controlled (Friedman, 1975). Most child-abuse researchers have been careful to match families on important demographic factors, such as socio-economic status (SES), sex and age of child and marital status. Few, however, have adequately controlled for other forms of family distress, such as neglect or child behavior problems, that would allow for a more specific understanding of how abusive families differ from nonabusive, problem families. Finally, empirical findings on the characteristics of abusive parents have been almost entirely based upon parents who have been reported to authorities. Sampling and selection biases may occur at several stages of research enquiry and restrict the external validity of the results. These problems notwithstanding, recent investigators have been careful to provide complete information about characteristics of their sample and the percentage of studies that use comparison groups and inferential statistics has shown a clear positive trend over the past decade (Plotkin et al., 1981).

Selection Criteria for Review

The current review covers empirical studies that compare samples of physically abusive parents with one or more control samples on psychological and behavioral dimensions. The selection criteria were: (a) a definition of the child-abuse sample indicating that parents and children were under the supervision of a child-protection agency due to alleged or confirmed physical abuse; (b) observational or self-report measures of known or reported psychometric properties; (c) research design that controlled for major demographic factors; and (d) complete presentation of results which enables reviewers to evaluate and interpret the findings. The presentation and discussion of comparative findings have been organized into two sections that correspond to the conceptual models previously delineated.

CHILD ABUSE AND PARENTAL ATTRIBUTES

Interest in child abusers' psychological functioning has been strong throughout 2 decades of research, despite a lack of consensus regarding distinct personality attributes among abusive parents (e.g., Friedman, 1975; Parke and Collmer, 1975; Starr, 1979). This interest may be due, in part, to the clinical impressions of abusing parents reported in the first decade of research (Spinetta and Rigler, 1972; Steele and Pollock, 1968) as well as the clinical significance derived from the approach (Kempe and Helfer, 1972). Although abusing parents rarely show severe psychological disturbance (Spinetta and Rigler, 1972; Starr, 1979; Steele and Pollock, 1968), professional opinion reported by Spinetta and Rigler (1972) converged on the general assumption that abusers have a "defect in personality that allows aggressive impulses to be expressed too freely" (p. 299). The concept of a severe disorder was then replaced by such terms as inadequate, poor impulse control, immature and related personality constructs. Recent data challenges assumptions of significant character disorder. Instead, behavioral differences that are situation specific have emerged in recent studies comparing abusive and nonabusive parents.

Studies of abusers' psychological characteristics have typically attempted to determine whether preexisting traits can account for a significant aspect of abusive behavior without reference to current concrete events. Investigators have focused primarily on two global indexes of emotional and cognitive functioning: the parents' stable personality traits and their perceptions and expectations related to children. The relation between psychological symptoms and stressful life events emerges as well from these efforts.

Psychological Traits Versus Reactive Symptoms

Studies comparing abusive and nonabusive parents on psychological variables are presented in the first part of Table 1. Because these studies have involved a number of different questionnaires and factor labels, comparability of findings is questionable; therefore, the present review focuses upon the general outcome of these studies. Studies are presented chronologically to emphasize the recent surge of investigations.

Overall, the results indicate that studies using measures of underlying personality attributes or traits have been unable to detect any patterns associated with child abuse beyond general descriptions of displeasure in the parenting role and stress-related complaints. Studies conducted by Wright (1976), Gaines, Sandgrund, Green and Power (1978) and Starr (1982) failed to find significant group differences on multiple measures of personality functioning. Only two studies (Milner and Wimberley, 1980; Spinetta, 1978), using separate instruments designed to discriminate abusive from nonabusive parents, found more reported psychological symptoms among abusers (e.g., anger, unhappiness, rigidity). Interestingly, both instruments included a majority of questions related specifically to the parenting role, which could account for these findings. Abusers did not differ on any dimension from members of other problem families (Spinetta, 1978) and did not reveal consistent or interpretable patterns in these studies.

In contrast to these findings, three investigations have found elevated reports of affective and somatic distress among abusive samples, as shown in Table 1. Conger, Burgess and Barrett (1979) reported that abusers were more likely to reveal physical health problems than were controls, which they interpreted in relation to greater life changes in abusive families. In a related study, Lahey, Conger, Atkeson and Treiber (1984) found abusers to report more symptoms of depression and physical and emotional distress than low-SES and mid-SES control groups. Moreover, correlation analyses revealed that higher scores on distress measures were associated with relatively less positive and more negative interactions of both mothers and children. Similarly, Mash, Johnston and Kovitz (1983) found that abusers reported more problems related to stressful child rearing when responding to their sense of competence and frustration in the parenting role.

These latter findings suggest an alternative to the psychiatric viewpoint of the importance of the parents' psychological functioning in the etiology or maintenance of child maltreatment. Parental ability may be significantly influenced by events within and outside of the family (cf. Belsky, 1980). Thus, one would expect to see some signs of emotional distress in persons who are exposed to a large number of uncontrollable, aversive demands (Johnson and Sarason, 1978; Justice and Duncan, 1976). Moreover, these signs or symptoms could be expressed by the individual in relation to the situational context, such as child rearing or family conflict, without being of such magnitude as to be evident without reference to specific problem events (Mischel, 1973). These studies suggested that both over-control (e.g., depression, physical complaints) and undercontrol (e.g., aggression, verbal abuse) parental behaviors and symptoms are possible reactions to child- and family-mediated stress. Individual characteristics that have received less attention from researchers, such as low tolerance for stress, inappropriate and inadequate models and learning opportunities and a poor repertoire of life skills, may be precursors to these reactions to stressful life events (Kelly, 1983).

TABLE 1

Comparative Studies of Abusive Parents

Study	Comparison groups (N)	Assessment situation	Target of assessment	Results
Studies of abusers' psychological characteristics and child perceptions				
Wright (1976)	Abuse (13), control (13)	Questionnaire	Personality functioning	Personal adjustment: No significant differences on 9 clinical MMPI scales
Gaines et al. (1978)	Abuse (80), neglect (80), control (80)	Questionnaires	Personal adjustment; child rearing attitudes	Personal adjustment: No differences between A or C on any variable (stress, emotional needs, denial of problems, relationship with own parents, coping); N greater life stress and emotional needs than A or C; perceptions of child: No significant differences
Spinetta (1978)	Abuse (7), neglect (13), abuser's spouse (9), Control: low SES, high education (15); mid SES (15); low SES (41)	Questionnaire	Parental personality and child rearing attitudes	Personal adjustment: 3 high-risk groups (abuse, neglect, abuser's spouse) more anger, isolation, fear of external control, poor family history than three control groups; no significant differences between 3 high-risk groups; perceptions of child: Abusers and their spouses had poorer expectations of child than

Table 1 (cont'd)

Study	Comparison groups (N)	Assessment situation	Target of assessment	Results
Studies of abuser's psychological characteristics and child perceptions				
				did mid-SES group; no other significant group differences
Conger et al. (1979)	Abuse (20), control (20)	Questionnaires	Perceptions of physical and emotional health, life change	Personal adjustment: A more physical health problems than C and no significant differences in reported emotional problems; A more life change units than C, corresponding to major life stress
Milner and Wimberley (1980)	Abuse (65), control (65)	Questionnaire	Child abuse potential	Personal adjustment: A more unhappy, rigid and distressed than C; no group differences on loneliness, self-concept and interpersonal factors; perceptions of child: No differences
Starr (1982)	Abuse (87), control (87)	Questionnaires	a) Personality and social factors associated with abuse;	Personal adjustment: No significant differences[a]; perceptions of child: No

Table 1 (cont'd)

Study	Comparison groups (N)	Assessment situation	Target of assessment	Results
Studies of abusers' psychological characteristics and child perceptions (cont'd)				
			b) parents' perceptions of child	significant differences on child perceptions and discipline choices
Lahey et al. (1984)	Abuse (8): control: low-SES (8), mid-SES (8)	Questionnaires	Depression, anxiety and somatic complaints	Personal adjustment: A more depressed, more physical and emotional distress than C; A more anxious than mid- but not low-SES controls
Larrance and Twentyman (1983)	Abuse (10), neglect (10), control (10)	Presentation of 6 sequences of photo-graphic stimuli of their own child and another child	a) Causal attributions of child behavior; b) expectations of child	Perceptions of child: A and N more negative expecta-tions of child than C; attributions of child transgres-sion: A more internal and stable than N or C when own child trans-gressed; attribu-tions of positive child behavior: A and N more external and unstable than C; attributions of negative child behavior: A more internal and stable than N or C

Table 1 (cont'd)

Study	Comparison groups (N)	Assessment situation	Target of assessment	Results
Studies of abusers' psychological characteristics and child perceptions (cont'd)				
Mash et al. (1983)	Abuse (18)[b], control (18)	Questionnaires	a) Parenting stress and competence; b) ratings of child behavior	Personal adjustment: A more problems than C in stress related to child, mother-child relationship, mother and situational characteristics and lower sense of competence; perceptions of child: A more internalizing and externalizing child problems than C
Rosenberg and Reppucci (1983)	Abuse (12), distress (12)	a) Presentation of 3 vignettes of problem child behavior; b) Parent description of 3 experiences with own child	Perceptions and interpretations of child behavior	Perceptions of child: No group differences on perceptions of intent or disposition of child; no differences on use of intent statements to explain child behavior
Studies of abusers' behavior with family members				
Disbrow, Doerr, and Caulfield (1977)	Abuse (22), neglect (24), control (50)	a) One structured home observation; b) presentation of	a) Behavior ratings of parenting skills in the home	Interactions with child: A and N less communication and less facilitating behavior than C; no group differences in parents' use of

Table 1 (cont'd)

Study	Comparison groups (N)	Assessment situation	Target of assessment	Results
	Studies of abusers' behavior with family members (cont'd)			
		stressful and non-stressful family interactions on videotape	b) Psychophysiological changes in the lab	physical and verbal directives; response to stressful scenes: A higher heart rate and GSR responses than C; no differences for N group
Burgess and Conger (1978)	Abuse (17)[c], neglect (17), control (19)	Four 1-hr structured home observations	Rates of positive and negative behaviors among family members	Interactions with spouse: No group differences; interactions with child: A less physical and less positive than C; no significant differences in rates of negative behaviors; N more negative and less positive than C; A and N groups showed lower rates of family interaction overall than C
Dietrich, Starr, and Kaplan (1980)	Abuse (14), control (14)	Unstructured free-play with child in clinic	Duration and type of maternal stimulation with child	Interactions with child: A fewer tactile and auditory modes of stimulation than C; no differences on visual and vestibular modes of stimulation
Frodi and Lamb (1980)	Abuse (14), control (14)	Presentation of stressful and nonstressful infant stimuli on videotape	a) Psychophysiological changes in the lab; b) parental mood ratings	Response to stressful scenes: A more heart rate and skin conductance responses than C; no significant differences in blood pressure; A

Table 1 (cont'd)

Study	Comparison groups (N)	Assessment situation	Target of assessment	Results
	Studies of abusers' behavior with family members (cont'd)			
				more annoyed, less sympathetic than C; response to non-stressful scenes: A more blood pressure changes than C; A less attentive and happy, more indifferent, less willing to interact with infant than C
Reid et al. (1981)	Abuse (27), distress (61), control (27)	6-10 unstructured home observations	Rates of total aversive behavior among family members	Interactions with other family members: A higher rates of aversives than C or D; mothers in A higher rates of physical negatives than C or D; interactions with spouse: A more aversive than C or D; interactions with child: A and D more aversive than C
Mash et al. (1983)	Abuse (18)[b], control (18)	One 30-40 min structured and unstructured clinic observation	Percentage of positive and negative parent behaviors	Interactions with child: A more directive than C during structured task; no significant differences across situations on question, interaction, praise, negative and no response categories
Wolfe et al.	Abuse (7), control (7)	Presentation of stressful	Psycho-physiological	Response to stressful scenes: A more

Table 1 (cont'd)

Study	Comparison groups (N)	Assessment situation	Target of assessment	Results
	Studies of abusers' behavior with family members (cont'd)			
(1983)		and nonstressful Parent X Child interactions on videotape	changes in the lab	skin conductance and respiration changes than C; no differences in heart rate
Bousha and Twentyman (1984)	Abuse (12), neglect (12), control (12)	Three 90-min unstructured home observations	Rates of positive and negative behaviors	Interactions with child: A less social interaction, initiation, verbal and nonverbal instruction and affection, play behavior than C; A more physical and verbal aggression than C and N; no significant differences on vocal negative; N less social interaction and verbal instruction than A or C; A and N similar on rates of prosocial behavior
Lahey et al. (1984)	Abuse (8), control: low-SES (8); mid-SES (8)	Six 45-min structured home observations	Rates of positive and negative behaviors among family members	Interactions with other family members: A more physically negative than both C groups; A less positive affect than mid-SES but not low-SES controls; no significant differences on verbal and physical positives, verbal negatives
Lorber, Felton,	Abuse (9), distress (9),	Three 20-min unstructured	Rates of parent and child	Interactions with other family

Table 1 (cont'd)

Study	Comparison groups (N)	Assessment situation	Target of assessment	Results
Studies of abusers' behavior with family members (cont'd)				
and Reid (1984)	control (9)	home observations	aversive interactions; parenting skills	members: A and D more aversive than C; no differences between A and D in overall rates of aversives or extremely aversive behaviors; A reciprocated aversives with spouse ($r = .94$) more than D or C; interactions with child: A and D equally effective in terminating aversive child behavior; A more inappropriate than D in response to unprovoked (prosocial) child behavior (no C comparison due to low rates of aversives)

Note - A = abuse family; C = control family; D = distressed family (referred for child-behavior problems); N = neglect; MMPI = Minnesota Multiphasic Personality Inventory; SES = socioeconomic status; GSR = galvanic skin response.

[a] In this study 249 variables across social, demographic and individual factors were analyzed and could not be reduced by factor analysis. Although 16 variables were significant at $p < .05$, Starr (1982) stressed that these findings do not exceed chance.

[b] Abuse groups were significantly lower in SES than controls.

[c] Analyses were conducted with both target parent and spouse. N reflects number of families in study.

Evidence that abusive parents perceive their environment to be unpredictable and stressful has also been reported in several comparative studies. The results suggest that, in the aggregate, abusers may not be subjected to significantly more socioeconomic disadvantage and life changes than matched control families (Gaines et al., 1978; Starr, 1982). Yet, the type and degree of life change associated with abusive families is more often perceived by these parents as aversive and debilitating (Conger et al., 1979; Mash et al., 1983; Rosenberg and Reppucci, 1983). Further, these perceptions of adverse family and environmental conditions are strongly associated with abusers' failure to use social supports (Garbarino, 1976, 1982; Salzinger, Kaplan and Artemyeff, 1983; Turner, 1982).

These findings linking social influences and parental behavior have also been reported among nonabusive populations similar in social characteristics to abusive samples. In a recent observational study of 74 mothers and their children, Conger, McCarty, Yang, Lahey and Kropp (in press) reported that social factors (income, family structure, education and age at birth of first child) accounted for as much as 36% of the variance in a measure of psychological risk for maladaptive parenting. Similarly, stress and social supports were found to be important predictors of mother-child interaction (Weinraub and Wolf, 1983), maternal attitudes and behavior with young infants (Crnic, Greenberg, Ragozin, Robinson and Basham, 1983) and pediatric social illnesses (Morse, Hyde, Newberger and Reed, 1977).

In sum, these studies suggested that although abusive parents do not reveal symptoms indicative of a psychological disorder, they display stress-related symptoms such as depression and health problems that likely impair their parental competence. The bidirectional relation between psychological functioning and adaptation to stressful life events appears to be the most parsimonious explanation of these findings. Child abuse can be considered as an attempt by parents to gain control over multiple aversive events present in their environments. According to this argument, parents who possess the capability for handling these events would be less likely to respond to their child in an aggressive fashion.

Perceptions and Expectations of Children

A second major dimension suspected to engender inappropriate parent behavior involves the parents' unusually high demands or distorted perceptions of their child's behavior. The parents' lack of awareness of children's needs has been linked by earlier investigators (Spinetta and Rigler, 1972; Steele and Pollock, 1968) to their own immaturity, self-centeredness, projection, history of deprivation and similar intrinsic and acquired characteristics.

As shown in Table 1, four studies exploring this issue using questionnaires failed to differentiate abusers from controls on attitudinal/perceptual dimensions. Using the factor termed "Expectations of Children" from the Michigan Screening Profile of Parenting, Gaines et al. (1978) reported no overall differences between groups and Spinetta (1978) found that abusers and their spouses differed only from one of their comparison groups (mid-SES parents). Milner and Wimberley (1980), using the Child Abuse Potential Inventory, reported that the two factors on this scale that are related to

child-behavior problems and negative concept of the child did not distinguish between abusing and non-abusing parents. The large-scale study reported by Starr (1982) likewise found no group differences on any measure of child perceptions or discipline choices from a questionnaire.

Recent studies have approached the issue of child perception through improved methodology that has included samples of real or simulated child behavior. The study by Mash et al. (1983) found a discrepancy between parental report and direct observation of child behavior. Abusive mothers in the study reported more behavior problems with their children, yet observations of each child with their respective parent failed to reveal significant differences in child behavior in comparison to controls. This issue was further explored by two studies in Table 1 that presented abusive and nonabusive parents with easily recognizable, unpleasant child stimuli in the laboratory. Abusers reported more annoyance and lack of sympathy to a crying infant (Frodi and Lamb, 1980) and more negative expectations and more internal and stable attributions of their child when the child apparently misbehaved (Larrance and Twentyman, 1983). These latter two studies presented the parent with highly salient child cues; no group differences were found in a third laboratory study that relied upon parental recall of child behavior and less salient cues (i.e., taped vignettes of child behavior; Rosenberg and Reppucci, 1983).

The available findings regarding parental perceptions and expectations of children suggest that causal inferences of child abuse based on preexisting characteristics are misleading. An alternative explanation involves a learning process whereby salient child characteristics (e.g., noncompliance, voice tone, facial expressions) are associated with parental frustration, poor coping and low self-efficacy (Kadushin and Martin, 1981; Vasta, 1982). Thus, an abuser's perceptual/cognitive style with a child may be a learned pattern that serves to perpetuate conflict and disharmony. Moreover, the parent may fail to acknowledge improvements in child behavior and to modify their behavior accordingly (Bell and Harper, 1977; Egeland and Sroufe, 1981). This pattern or style can be best revealed during realistic child situations. This issue is further explored in studies investigating parents' behavioral (as opposed to self-report) responses vis-à-vis child behavior in the family.

CHILD ABUSE AND DYSFUNCTIONAL FAMILY INTERACTIONS

For many years, child-abuse and family-violence researchers and practitioners have reported more hitting, overt conflict and disharmony among family members, although efforts at measuring family interactions have lagged behind self-report assessments. Ascribed roles, lack of privacy, high levels of stress and the legitimate acceptance of physical aggression are several important factors that may be responsible for higher rates of violence in the family in comparison to other social groups (Gelles and Straus, 1979). This line of research focuses on the amount and type of aversive behavior among family members as well as possible antecedents that provoke and maintain child abuse. In particular, researchers are interested in whether abusive parents are more harsh toward their children, less positive or affectionate and whether they respond to child-related events with signs of arousal and agitation.

The interactional orientation of these investigations is accompanied by an emphasis upon behavioral observations, in contrast to self-report measures. Investigators have generally narrowed their focus to allow for more detailed analyses of specific concerns, such as a parent's reactions to the child's demands at home. Observation periods may be structured to increase family activity (such as a teaching or compliance task) or unstructured to observe the families with only a minimum amount of interference. Although the reactive effects of observers are not precisely known, the consensus among researchers is that naturalistic observations provide a close approximation of family life (Christensen and Hazzard, 1983; Friedman et al., 1981; Patterson, Reid, Jones and Conger, 1975). These interactional data enable the researchers to investigate sequential behaviors and conditional probabilities and to combine several related codes to form an index of positive and negative interactions.

Instead of observing family members directly, three investigations reviewed below have approached the study of parent-child interactions by presenting child stimuli to the parent in a laboratory setting and measuring their psychophysiological responses, as an analog of problems at home. Audio-visual cues of stressful child behavior (e.g., crying infant, defiant preschooler) are used to simulate common child rearing situations to determine whether abusive parents display more conditioned arousal and displeasure under controlled stimulus conditions than nonabusive controls.

Levels of Conflict in Abusive Families

A significant advancement in one's understanding of child abuse was the confirmation of a link between abusive behavior and other forms of severe family conflict. Interviews conducted with a nationwide sample of 1146 persons living with a partner and children revealed that previous exposure to harsh physical punishment as a child and marital disharmony and violence as an adult were significantly associated with higher rates of severe violence toward children (Straus, 1980a, 1980b). The explanation proffered for this association contends that violence in one sphere of life tends to carry over into other spheres. These interview data also showed that mothers tend to use more physical punishment with children than do fathers and that the amount of violence toward a child was associated with marital violence, more so for women than for men (Straus, 1980b).[1] These initial empirical findings directed researchers' attention to the importance of the aversive encounters with others in the family that may evoke aggression.

As shown in the second section of Table 1, abusive parents emit aversive behaviors (such as physical negatives, threats, yelling) toward others in the family at a rate that significantly differs from nonabusive controls. Burgess and Conger (1978) found family members in abusive homes to interact with one another at a much lower rate than non-problem families and such interactions were proportionately more negative in tone. Similarly, Reid

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[1]The reader is referred to the original papers by Straus (1980a, 1980b) for a full discussion of possible explanations regarding family violence and mother-child conflict, as well as discussions by Lorber et al. (1984) and Burgess and Conger (1978).

et al. (1981), Lahey et al. (1984) and Lorber, Felton and Reid (1984) reported that abusive parents in their samples emitted higher rates of aversive behavior toward other family members than did control families. In comparing abusive parents with a distressed group of parents (i.e., clinic referred for child-behavior problems) it should be noted that abusers are not necessarily unique in their patterns of family conflict. Whereas Reid et al. (1981) reported that their abuse sample was significantly more aversive than a distressed sample of nonabusing parents, Lorber et al. (1984), using a similar methodology and coding system, did not replicate this finding. Nonetheless, these studies clearly indicated that child abuse is significantly associated with observable levels of conflict and problem behavior in the home and that the tone of family interactions is less positive than in nonproblem families (Burgess and Conger, 1978; Lahey et al., 1984).

Turning more specifically to interactions between adult partners, two out of three research studies have found evidence that the abusive parent is more likely than controls to engage in aversive interactions with a partner. Reid et al. (1981) reported that abusers displayed higher rates of aversive behavior toward their spouses than did parents from distressed (i.e., experiencing child-behavior problems) or normal families. Interestingly, in a replication of the Reid study, Lorber et al. (1984) did not find differences in rate of aversive interactions with a partner, yet they found these aversive behaviors to be highly correlated ($r = .94$) among abusive families only. The investigators interpreted this finding as evidence for reciprocation of aversive behavior in aggressive families, which is theorized as an important contributor to the coercive family process (Patterson, 1982). Moreover, these findings provide further empirical support for the position that adult conflict is associated with inappropriate behavior toward children (Emery, 1982; Straus, 1980a, 1980b).

Common Child Rearing Situations

The most widely investigated issue related to interactions in abusive families is the suspicion that such parents are significantly more punitive and harsh toward their children during common child rearing situations. If supported by empirical findings, one could interpret such aversive interactions as indicative of a pronounced impulse disorder or characterological defect, because they would be using excessive punishment and force that is far out of proportion to the situation or cultural norms (Spinetta and Rigler, 1972). Alternatively, social interaction theorists have argued that abusive parents fail to use effective contingencies that would serve to reduce problems with their child and fail to use positive methods to teach their child desirable behaviors (Burgess and Richardson, 1984; Friedman et al., 1981). As a result of such indiscriminant methods, the parent and child engage in a cycle of aversive behavior that may culminate in harm to the child (Kelly, 1983; Wolfe, Kaufman, Aragona and Sandler, 1981).

Several studies in Table 1 reveal that abusive parents rely on ineffective child-management techniques as opposed to excessively aversive or punitive methods. Investigators reporting a measure of positive behavior toward the child have demonstrated that abusive parents use fewer communicative and facilitating behaviors (Disbrow, Doerr and Caulfield, 1977), use

fewer physical and positive behaviors (Bousha and Twentyman, 1984; Burgess and Conger, 1978), use tactile and auditory modes of stimulation less frequently (Dietrich, Starr and Kaplan, 1980) and display less positive affect (Lahey et al., 1984) during interactions with their children relative to control families. In contrast, investigations of abusers' rates of aversive behavior toward their children have produced equivocal findings. Burgess and Conger (1978) and Mash et al. (1983) found no differences between abusive and nonabusive families on rate of negative behaviors. Reid et al. (1981) and Lorber et al. (1984) reported that abusive and distressed parents were more aversive toward their children than were parents in nonproblem families, but the two problem groups did not differ from each other on this measure. Two studies, however, found abusers to be significantly more physically negative or aggressive toward their children than are controls (Bousha and Twentyman, 1984; Lahey et al., 1984).

One possible explanation for the findings that abusers are less positive but not necessarily more negative toward their child than nonabusers have been suggested by Lorber et al. (1984). These researchers studied separately the parents' behavior following an episode of child-aversive or child-prosocial behavior. Whereas abusive parents were similar to nonabusive parents with problem children in terminating aversive child-behavior episodes, abusive parents often responded negatively to prosocial child behavior. Moreover, these authors found a significant correlation only for the abuse sample ($r = .77$, $p < .01$) between mother and child in terms of aversive behavior directed toward each other. Lahey et al. (1984) similarly reported a significant correlation ($r = .47$, $p < .01$) between abusive parents' and children's percentage of positive affect expressed during interactions. These findings suggest that the actual rates of negative or aversive behavior shown by parents toward their children may not be as important in distinguishing abusive and nonabusive parenting as was once assumed. Instead, the reciprocal manner by which they emit such behavior, the manner in which aversive behavior is negatively reinforced and the relatively infrequent use of positive statements seem to characterize parent/child interactions in abusive homes. According to Lorber et al. (1984), "not only do abusive mothers and abused children reciprocate one another's aversive behavior, but they seem to respond in a fashion which **actively maintains it**" (p. 38).

In sum, observations of parent-child interactions in abusive and nonabusive families have revealed an imbalance in the proportion of negative to positive behavior. Abusive parents do not necessarily emit a significantly higher frequency of aversive behaviors with their children than other parents (especially those having child problems); however, abusers are more likely to engage in aversive as opposed to prosocial behaviors when they do choose to interact with the child. The reliance upon aversive control may result in an escalation of coercive behavior (Reid et al., 1981). Such qualitative differences in patterns of interaction seem to be a significant factor in the differentiation of abusive from nonabusive families (Crittenden, 1981).

Difficult Child Rearing Situations

Behavior problems among abused children. The influence of child behavior upon adult caregiving behavior has been recognized as a potential factor in child abuse (Bell and Harper, 1977; Friedman et al., 1981; Friedrich

and Boriskin, 1976). Because several studies included in this review of abusive parents also reported data regarding child behavior, a brief discussion of the child's role in abuse is presented in conjunction with the parents' responses.

Comparisons of the rate and type of behavior problems shown by abused and non-abused children suggest that abused children display more disruptive behaviors than children in nonproblem families. Moreover, their behavior patterns resemble those often displayed by behavior-problem children from distressed families (Lahey et al., 1984; Lorber et al., 1984; Wolfe and Mosk, 1983). Reid et al. (1981) reported that abused children in their sample displayed the highest rates per minute (rpm) of Total Aversive Behavior of any family member (.83 rpm), which also exceeded the rates of clinic-referred, behavior-problem (.52 rpm) and nonproblem (.28 rpm) children. Lahey et al. (1984) reported that an average of 4% of the behaviors emitted by abused children involve a physical negative (pushing, hitting, or grabbing), as compared with 1.5% of low-SES and 0.5% of middle-SES control children. Similarly, Bousha and Twentyman (1984) found that abused and neglected children emitted significantly higher rates of physical and verbal aggression than nonproblem children. Two other observational studies investigating child behavior (Burgess and Conger, 1978; Mash et al., 1983) did not find the rates of negative behaviors shown by abused children to differ significantly from those of control.

As suggested by these data, the abused child is likely to present the parent with a high frequency of problematic situations due to dispositional characteristics, learned reactions to family members, or both (George and Main, 1979; Toro, 1982). As discussed previously, one noteworthy explanation for the relation between child behavior and abuse was suggested by the significant correlation between aversive parent and child behavior in abusive families (Lorber et al., 1984). The parent and child engage in the reciprocation of coercive behavior that increases conflict.

Arousal and reactivity to aversive child stimuli. Most incidents of child abuse involve a great deal more than the use of corporal punishment with a child during a "coercive battle". The potential for injury to the child dramatically increases as the parent loses control and accelerates from low- to high-intensity punitive behavior (Vasta, 1982). As in related areas of aggression research, this transition from anger to aggression is viewed as a key factor in explaining interpersonal violence (Berkowitz, 1983). A brief look at the theoretical process of aggressive responding, followed by data from abusive parents, will allow a parallel understanding of child abuse.

Hostile aggression in humans appears to be highly attributable to situational cues and characteristics of the individual (Averill, 1983; Berkowitz, 1983; Zillman, 1979). In the case of abusive parents, the situational cues involve aversive behavior or features of the child and the presumed individual characteristics include such factors as oversensitivity (Knutson, 1978), disinhibition of aggression (Zillman, 1979), poor skill repertoire (Novaco, 1978) and related characteristics of the adult. Experiments with normal subjects have determined that anger, a precursor to aggression, is a highly interpersonal emotion that typically involves a close affectional relationship between the angry person and the target (Averill, 1983).

To explain how anger may lead to aggression, Berkowitz (1983) maintained that the paired association of noxious events (such as child tantrums) with otherwise neutral stimuli (such as child's facial expression) can evoke aggressive responding in the adult in subsequent interactions. Presumably, the adult is responding to cues that have previously been associated with frustration or anger and the adult's behavior toward the child may be potentiated by these conditioning experiences (Berkowitz, 1982; Vasta, 1982).

Theoretical interpretations and findings from related aggression research have sparked investigators to measure abusive parents' emotional reactivity to aversive child behavior. Child abusers, according to this model, would display conditioned arousal to child events that resemble previous situations they have encountered. To address this concern, three studies in Table 1 used a laboratory analog of aversive child behavior using videotaped stimuli and measured parental psychophysiological responses. Results from a comparison of the arousal of abusers with that of matched controls support the contention that abusers shown more emotional reactivity to child behavior (Disbrow et al., 1977; Frodi and Lamb, 1980; Wolfe, Fairbank, Kelly and Bradlyn, 1983). Such arousal can be a significant mediator of aggression when it takes the form of anger (Rule and Nesdale, 1976) and it may explain why abusive parents have difficulty controlling their reactions toward their children despite their intentions (Spinetta and Rigler, 1972).

Abuse Versus Neglect: Psychological and Behavioral Distinctions

Parental and situational factors associated with child neglect may be considerably different from those discussed in reference to child abuse (Aragona and Eyberg, 1981; Polansky, Hally and Polansky, 1975). In particular, researchers have generally not found child-related reasons associated with neglect (Polansky et al., 1975), whereas child abuse appears to be significantly linked to child behavior (Kadushin and Martin, 1981). A study of case records describing the circumstances surrounding the occurrence of child abuse and neglect illustrates this distinction (Herrenkohl, Herrenkohl, and Egolf, 1983). Physical abuse was associated most often with oppositional child behaviors, whereas neglect was characterized by adult inadequacy and failure to assume basic responsibilities. The neglecting parent, therefore, may show a more chronic pattern of interpersonal conflict, irresponsibility and apathy than the abusive parent.

Six studies reviewed in Table 1 involved samples of neglecting parents in comparisons that illustrate the behavioral and psychological factors that may distinguish abusing and neglecting parents. In their multivariate study examining large samples of abusing, neglecting and normal parents, Gaines et al. (1978) found neglectors to differ significantly from abusers and normals on a measure of life stress and emotional needs. These investigators reported in their discussion that the neglect group was functioning more poorly on all 12 measures than either of the comparison groups. Two additional studies using self-report measures and smaller samples generally did not report significant differences between abusing and neglecting parents on child rearing knowledge or attributions (Larrance and Twentyman, 1983; Spinetta, 1978). However, neglect samples differed from normal controls in both studies.

Differences in family interactions are reflected in observational data from abusing, neglecting and normal families. As shown in Table 1, Burgess and Conger (1978) found not only that neglectors interacted less frequently in the family than did normals, but they also were more negative in their total interaction and in their interaction with their children than were abusers. Bousha and Twentyman (1984) also reported that neglectors had low rates of social interaction and prosocial behavior toward their children, although neglectors were not more aversive than abusers. Data presented by Disbrow et al. (1977) similarly support the conclusion that neglecting parents tend to ignore child behavior and further, do not show changes in psychological measures when presented with stressful situations with their children. These findings require additional support to clarify more precisely the behavioral and situational correlates of neglect and abuse. It would be especially useful to investigate a wide range of psychological and behavioral variables that may pinpoint the different aspects of these forms of maltreatment. It is conceivable that neglect and abuse have substantially different etiologies and may require different treatments (Aragona and Eyberg, 1981; Bousha and Twentyman, 1984; Herrenkohl et al., 1983).

To summarize, the review on child abuse and dysfunctional family interactions has pinpointed several important distinguishing features of the behavior of family members in abusive versus nonabusive families. Observations of family interactions have supported clinical and theoretical statements regarding the negative and coercive style prevalent in abusive families. Moreover, the results of separate analyses of mother and father conflict are highly suggestive of excessive coercion and disharmony accompanying marital interactions, which may serve to precipitate or exacerbate child rearing problems. The data also link together important findings concerning parental behavior with the child that are contrary to earlier unidirectional theories of abuse. Both the parent and child are more likely to reciprocate aversive behavior and to maintain a higher level of conflict. In combination with a relatively low rate of positive or neutral exchanges, a pattern of behavior with their child is displayed by abusers that is proportionately more aversive than for nonabusers. Similarly, it has been shown that the abused child is likely to display rates of aversive behavior that are comparable with clinic-referred, behavior-problem children. In response to a child's problem behavior, the abusive parent may develop an idiosyncratic arousal pattern that is governed by situational factors and child cues and which serve to evoke aggressive reactions. Finally, findings comparing abusing and neglecting parents support the argument that these two forms of parental dysfunction may be distinguished on the basis of parent-child interactions and parent symptomatology.

CHILD ABUSE PREVENTION AND RESEARCH

Enhancing Parental Competence and Family Functioning

Several authors have called for a multidisciplinary prevention approach that attacks child abuse at all levels (e.g., Belsky, 1980; Cohn, 1982; Helfer, 1982; Lutzker, 1983). Community support (Garbarino, 1982) and training programs (Wolfe, Sandler and Kaufman, 1981) designed to improve the quality of child rearing are clearly more desirable than recrimination and

blame. On the basis of the present review, several practical methods are suggested for reducing situational demands and increasing the parent's ability to withstand adversity.

Methods for reducing situational demands should be a high priority in any child-abuse prevention program. Child-related demands, perhaps the most significant factor associated with abuse, can be eased temporarily through the availability of respite homes and relief parents. More stable and adequate provisions for reducing child distress, however, should be the goal of every community. These include (a) subsidized day care and preschool for families, (b) volunteer homemaker programs that provide nonthreatening, paraprofessional assistance, and (c) early stimulation programs to enhance the child's abilities in such areas as language and social interaction, because delays in adaptive and prosocial behavior can lead to parental rejection, inattention, or abuse (Friedman et al., 1981; Wolfe, in press).

It has become increasingly apparent that abuse is precipitated by or associated with other forms of family conflict and stress in addition to child-related demands. Conflict between adult partners places the child in jeopardy of injury and impaired emotional development (Emery, 1982). Child abuse appears to be enmeshed in hierarchical levels of family distress and disadvantage and thus any effort directed toward ameliorating family dysfunction (e.g., Jaffe, Thompson and Wolfe, 1984) should have compensatory benefits to the child.

Methods for increasing the parent's adaptive skills are also desirable, because these efforts will better prepare the parent for diverse role demands. There are several behavioral dimensions that merit assessment and evaluation. First, the parent's skills and complaints related to teaching and disciplining the child should be determined by observation and interview. Problems in these areas may be approached by training procedures that approximate naturalistic conditions for skill rehearsal (e.g., Forehand and McMahon, 1981; Wolfe et al., 1981), as well as by counseling and volunteer services (Kempe and Helfer, 1972). Second, the parents' level of conditioned arousal (i.e., expressions of tension, anger, being out of control and concomitant physiological changes) can be assessed by prompting the parents to recall aversive situations with their children. A parent who admits or noticeably displays emotional arousal to problems with a child may be taught coping strategies, such as relaxation, stress management, or in vivo desensitization (Denicola and Sandler, 1980; Koverola, Elliott-Faust and Wolfe, 1984). Third, some parents who avoid or dislike social contacts may be assisted by services that are culturally familiar and nonthreatening (Kelly, 1983; Turner, 1982). Neighborhood child care, religious and cultural activities and interest groups that provide some compatible incentives for the parent to participate offer low-cost alternatives to child-welfare agencies. Fourth, conflict resolution and marital problem-solving approaches that address particular concerns may reduce verbal and physical aggression between family members.

The abusive parent often lacks skills for handling life events, personal relationships and child rearing responsibilities due to insufficient learning opportunities and psychological characteristics more than to personality disturbances. Approaches to intervention should emphasize education and

guidance in a format that is flexible and responsive to individual needs (Blechman, 1981; Cohn, 1982; Lutzker, 1983).

Research Needs

In view of the interactive, multivariate nature of child abuse, innovative correlational and experimental studies are warranted. The behavior of abusive parents is strongly affected by situational demands; yet our understanding of individual factors and the critical events that interact with them remains primarily speculative and is based almost entirely on research with mothers only. To narrow these gaps, researchers can consider large- or small-scale investigative projects that study the relations among several variables simultaneously.

Prospective and descriptive studies may be pursued to investigate the individual and situational factors associated with high- versus low-competence parents. An exemplary study was begun by Egeland and his colleagues (Brunnquell, Crichton and Egeland, 1981; Egeland, Breitenbucher and Rosenberg, 1980) which has helped to clarify the relation between maternal characteristics and the later emergence of caretaking patterns. Mothers in their Excellent Care group, for example, were found to be of higher intelligence, reacted positively to pregnancy and had more positive expectations and understanding of their parental role than parents in their Inadequate Care group. Moreover, they have shown that parental competence (defined as sensitivity and responsiveness to infant cues, quality of verbalization and physical contact and related skills) and adjustment (e.g., low anxiety and adequate flexibility) were distinguishing abilities that moderated the impact of aversive life events. Our understanding of child abuse could profit from additional studies that explore theoretical predictions over time or between well-defined comparison groups.

Extended baseline studies and home-based intervention studies offer additional evaluation strategies for exploring the relations among a complex array of variables. The study of the behavior of family members over an extended time period affords a more thorough understanding of parental functioning in relation to important contextual variables. The correlation between negative parent behavior and chronic, yet relatively low-rate, events can be studied on an individual-case basis to determine patterns and predictors of deviant behavior within the family (Koverola, Manion and Wolfe, in press). Self-report and collateral report measures of daily hassles (Kanner, Coyne, Schaefer and Lazarus, 1981), crises (Patterson, 1982), contacts with nonfamily members (Wahler, 1980), perceived social supports (Turner, 1982) and fluctuations in mood, energy and physical health (Conger et al., 1979) merit more detailed investigation for the assessment and treatment of abusive families.

Experimental studies have been viewed as premature, because the nature and complexity of child abuse precluded the feasibility of controlled experiments. However, experimental studies of certain components are possible (Bell, 1981). For example, an experimental manipulation could investigate interaction effects between parental behavior and typical stimulus events, such as child behavior and competing activity, which are important for

formulating theoretical relations, treatment programs and guiding the selection of behaviors and situations for naturalistic studies (Bates and Pettit, 1981).

Recent studies have used laboratory analogs that simulate difficult parent/child situations (Mulhern and Passman, 1979; Passman and Mulhern, 1977; Vasta and Copitch, 1981; Zussman, 1980). These investigations, using nonabusive subjects, were successful in demonstrating that maternal punitiveness toward the child varied as a function of environmental and child-related stress imposed on the mother, the effectiveness of the punishment delivered and competing activity. In a similar manner, naturalistic observational methods could be expanded to quasi-experimental designs. Experimenter-controlled competing activity (for example, parents' involvement in a problem-solving task) could be introduced to observe changes in both parental and child behavior.

A final comment on the assessment of multidimensional factors associated with abuse is warranted in view of the conclusions presented herein. Home- and clinic-based behavioral observations of family interactions are sensitive and comprehensive research methods. This approach allows for an analysis of bidirectional effects and sequential interactions and has been valuable in the discrimination of specific problem areas (Friedman et al., 1981; Wolfe and Sandler, 1981). Behavioral observations, however, do not reveal the significance of many contextual factors that may dramatically influence parent and child behavior, such as marital, social, or financial problems (Griest and Wells, 1983; Wahler and Graves, 1983). Indirect assessment procedures that are tailored to the parental role are necessary for determining stable behavior patterns and qualitative factors that affect or are affected by parental competence. In addition, measures that reflect processes involved in family interactions may lead to clarification of distinct etiological or moderating variables involved in abuse and neglect. A taxonomic framework for treatment, epidemiology and research may result from such efforts.

CONCLUSIONS

Studies have indicated that abusive parents' behavior is related to salient situational events, especially child-related phenomena. The parents' self-report of displeasure, anxiety and attributions, in addition to physiological arousal and observed punitive behaviors, have each shown a relation to contextual variables. This relation between child abuse and situational events argues for a better understanding and assessment of psychological variables that exert an influence on parental competence, as opposed to psychopathology. Studies of psychological processes such as cognitive abilities, family roles, standards, expectations and child-related experiences may lead to the conceptualization of differences in situationally defined competence among diverse parent populations. These findings will guide prevention efforts aimed at reducing situational demands and providing compensatory learning experiences for disadvantaged families.

BIBLIOGRAPHY

Alfaro, J. D. (1981). Report on the relationship between child abuse and neglect and later socially deviant behavior. In R. J. Hunner and Y. E. Walker (Eds.), Exploring the relationship between child abuse and delinquency (pp. 175-219). Monteclair, NJ: Allanheld, Osmun.

Alvy, K. T. (1975). Preventing child abuse. American Psychologist, 30, 921-928.

Aragona, J. A., and Eyberg, S. M. (1981). Neglected children: Mothers' report of child behavior problems and observed verbal behavior. Child Development, 52, 596-602.

Averill, J. R. (1983). Studies on anger and aggression: Implications for theories of emotion. American Psychologist, 38, 1145-1160.

Bates, J. E., and Pettit, G. S. (1981). Adult individual differences as moderators of child effects. Journal of Abnormal Child Psychology, 9, 329-340.

Bell, R. Q. (1981). Introduction to symposium on parent, child and reciprocal influences: New experimental approaches. Journal of Abnormal Child Psychology, 9, 299-301.

Bell, R. Q., and Harper, L. (1977). Child effects on adults. Hillsdale, NJ: Erlbaum.

Belsky, J. (1980). Child maltreatment: An ecological integration. American Psychologist, 35, 320-335.

Berkowitz, L. (1983). Aversively stimulated aggression: Some parallels and differences in research with animals and humans. American Psychologist, 38, 1135-1144.

Besharov, D. J. (1981). Toward better research on child abuse and neglect: Making definitional issues an explicit methodological concern. Child Abuse and Neglect, 5, 383-390.

Blechman, E. A. (1981). Toward comprehensive behavioral family intervention: An algorithm for matching families and interventions. Behavior Modification, 5, 221-236.

Bousha, D. M., and Twentyman, C. T. (1984). Mother-child interactional style in abuse, neglect and control groups: Naturalistic observations in the home. Journal of Abnormal Psychology, 93, 106-114.

Brunnquell, D., Crichton, L., and Egeland, B. (1981). Maternal personality and attitude in disturbances of child rearing. American Journal of Orthopsychiatry, 51, 680-691.

Burgess, R. L. (1978). Child abuse: A social-interactional analysis. In B. B. Lahey and A. E. Kazdin (Eds.), Advances in clinical child psychology (Vol. 2, pp. 142-172). New York: Plenum.

Burgess, R. L., and Conger, R. (1978). Family interactions in abusive, neglectful and normal families. Child Development, 49, 1163-1173.

Burgess, R. L., and Richardson, R. A. (1984). Coercive interpersonal contingencies as determinants of child abuse: Implications for treatment and prevention. In R. F. Dangel and R. A. Polster (Eds.), Behavioral parent training: Issues in research and practice (pp. 239-259). New York: Guilford.

Campbell, D. T., and Stanley, J. C. (1966). Experimental and quasi-experimental designs for research. Chicago: Rand McNally.

Christensen, A., and Hazzard, A. (1983). Reactive effects during naturalistic observation of families. Behavioral Assessment, 5, 349-362.

Cohn, A. H. (1982). Stopping abuse before it occurs: Different solutions for different population groups. Child Abuse and Neglect, 6, 473-483.

Conger, R. D., McCarthy, J. A., Yang, R. K., Lahey, B. B., and Kropp, J. P. (in press). Perception of child, childrearing values and emotional distress as mediating links between environmental stressors and observed maternal behavior. Child Development.

Conger, R., Burgess, R., and Barrett, C. (1979). Child abuse related to life change and perceptions of illness: Some preliminary findings. Family Coordinator, 28, 73-78.

Crittenden, P. M. (1981). Abusing, neglecting, problematic and adequate dyads: Differentiating by patterns of interaction. Merrill-Palmer Quarterly, 27, 201-208.

Crnic, K. A., Greenberg, M. T., Ragozin, A. S., Robinson, N. M., and Basham, R. B. (1983). Effects of stress and social support on mothers and premature and full-term infants. Child Development, 54, 209-217.

Denicola, J., and Sandler, J. (1980). Training abusive parents in cognitive-behavioral techniques. Behavior Therapy, 11, 263-270.

Dietrich, K. N., Starr, R. H., and Kaplan, M. G. (1980). Maternal stimulation and care of abused infants. In T. M. Field, S. Goldberg, D. Stern, and A. M. Sostek (Eds.), High-risk infants and children: Adult and peer interactions (pp. 25-41). New York: Academic Press.

Disbrow, M. A., Doerr, H., and Caulfield, C. (1977). Measuring the components of parents' potential for child abuse and neglect. Child Abuse and Neglect, 1, 279-296.

Egeland, B., Breitenbucher, M., and Rosenberg, D. (1980). Prospective study of the significance of life stress in the etiology of child abuse. Journal of Consulting and Clinical Psychology, 48, 195-205.

Egeland, B., and Sroufe, L. A. (1981). Attachment and early maltreatment. Child Development, 52, 44-52.

Emery, R. E. (1982). Interparental conflict and the children of discord and divorce. Psychological Bulletin, 92, 310-330.

Forehand, R. L., and McMahon, R. J. (1981). Helping the noncompliant child: A clinician's guide to parent training. New York: Guilford.

Friedman, R., Sandler, J., Hernandez, M., and Wolfe, D. (1981). Child abuse. In E. Mash and L. Terdal (Eds.), Behavioral assessment of childhood disorders (pp. 221-255). New York: Guilford.

Friedman, R. M. (1975). Child abuse: A review of the psychosocial research. In Herner Co. (Eds.), Four perspectives of child abuse and neglect research. Springfield, VA: National Technical Information Service (NTIS No. PB-250-852AS).

Friedrich, W. N., and Boriskin, J. A. (1976). The role of the child in abuse: A review of the literature. American Journal of Orthopsychiatry, 46, 580-590.

Frodi, A. M., and Lamb, M. E. (1980). Child abusers' responses to infant smiles and cries. Child Development, 51, 238-241.

Gaines, R., Sandgrund, A., Green, A. H., and Power, E. (1978). Etiological factors in child maltreatment: A multivariate study of abusing, neglecting and normal mothers. Journal of Abnormal Psychology, 87, 531-540.

Garbarino, J. (1976). A preliminary study of some ecological correlates of child abuse: The impact of socioeconomic stress on mothers. Child Development, 47, 178-185.

Garbarino, J. (1982). Children and families in the social environment. Hawthorne, NY: Aldine.

Gelles, R. J. (1982). Toward better research on child abuse and neglect: A response to Besharov. Child Abuse and Neglect, 6, 495-496.

Gelles, R. J., and Straus, M. A. (1979). Determinants of violence in the family: Toward a theoretical integration. In W. R. Burr, R. Hill, F. I. Nye, and I. L. Reiss (Eds.), Contemporary theories about the family (pp. 549-581). New York: Free Press.

George, C., and Main, M. (1979). Social interactions of young abused children: Approach, avoidance and aggression. Child Development, 50, 306-318.

Griest, D. L., and Wells, K. C. (1983). Behavioral family therapy with conduct disorders in children. Behavior Therapy, 13, 37-53.

Helfer, R. E. (1982). A review of the literature on the prevention of child abuse and neglect. Child Abuse and Neglect, 6, 251-261.

Herrenkohl, R. C., Herrenkohl, E. C., and Egolf, B. P. (1983). Circumstances surrounding the occurrence of child maltreatment. Journal of Consulting and Clinical Psychology, 51, 424-431.

Jaffe, P., Thompson, J., and Wolfe, D. A. (1984). Evaluating the impact of a specialized civilian family crisis unit within a police force on the resolution of family conflicts. Journal of Preventive Psychiatry, 2, 63-69.

Johnson, J. H., and Sarason, I. G. (1978). Life stress, depression and anxiety: Internal-external control as a moderator variable. Journal of Psychosomatic Research, 22, 205-208.

Justice, B., and Duncan, D. F. (1976). Life crisis as a precursor to child abuse. Public Health Reports, 91, 110-115.

Kadushin, A., and Martin, J. (1981). Child abuse: An interactional event. New York: Columbia University.

Kanner, A. D., Coyne, S. C., Schaefer, C., and Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts vs. major life events. Journal of Behavioral Measurement, 4, 1-39.

Kelly, J. A. (1983). Treating child abusive families: Intervention based on skills training principles. New York: Plenum.

Kempe, C. H. (1973). A practical approach to the protection of the abused child and the rehabilitation of the abusing parent. Pediatrics, 51, 804-812.

Kempe, C. H., and Helfer, R. E. (1972). Helping the battered child and his family. Philadelphia: Lippincott.

Knutson, J. F. (1978). Child abuse as an area of aggression research. Journal of Pediatric Psychology, 3, 20-27.

Koverola, C., Elliott-Faust, D., and Wolfe, D. (1984). Clinical issues in the behavioral treatment of a child abusive mother experiencing multiple life stresses. Journal of Clinical Child Psychology; 13, 187-191.

Koverola, C., Manion, I., and Wolfe, D. A. (in press). A microanalysis of factors associated with child abusive families. Behavioral Research and Therapy.

Lahey, B. B., Conger, R. D., Atkeson, B. M., and Treiber, F. A. (1984). Parenting behavior and emotional status of physically abusive mothers. Journal of Consulting and Clinical Psychology, 52, 1062-1071.

Larrance, D. T., and Twentyman, C. T. (1983). Maternal attributions and child abuse. Journal of Abnormal Psychology, 92, 449-457.

Lorber, R., Felton, D. K., and Reid, J. B. (1984). A social learning approach to the reduction of coercive processes in child abusive families: A molecular analysis. Advances in Behavior Research and Therapy, 6, 29-45.

Lutzker, J. R. (1983). Project 12-Ways: Treating child abuse and neglect from an ecobehavioral perspective. In R. F. Dangel and R. A. Polster (Eds.), Parent training: Foundations of research and practice (pp. 260-297). New York: Guilford.

Magnuson, E. (1983, Sept. 5). Child abuse: The ultimate betrayal. Time, pp. 16-18.

Mash, E. J., Johnston, C., and Kovitz, K. (1983). A comparison of the mother-child interactions of physically abused and non-abused children during play and task situations. Journal of Clinical Child Psychology, 12, 337-346.

Melnick, B., and Hurley, J. R. (1969). Distinctive personality attributes of child-abusing mothers. Journals of Consulting and Clinical Psychology, 33, 746-749.

Merrill, E. J. (1962). Physical abuse of children: An agency study. In V. DeFrancis (Ed.), Protecting the battered child. Denver, CO: American Humane Association.

Milner, J. S., and Wimberley, R. C. (1980). Prediction and explanation of child abuse. Journal of Clinical Psychology, 36, 875-884.

Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. Psychological Review, 80, 252-283.

Morse, A. E., Hyde, J. N., Newberger, E. H., and Reed, R. B. (1977). Environmental correlates of pediatric social illness: Preventive implications of an advocacy approach. American Journal of Public Health, 67, 612-615.

Mulhern, R. K., Jr., and Passman, R. H. (1979). The child's behavioral pattern as a determinant of maternal punitiveness. Child Development, 50, 815-820.

National Center on Child Abuse and Neglect. (1981). Executive summary: National study of the incidence and severity of child abuse and neglect (DHHS Publication No. OHDS 81-30329). Washington, DC: U.S. Government Printing Office.

Novaco, R. W. (1978). Anger and coping with stress. In J. Foreyt and D. Rathjen (Eds.), Cognitive behavior therapy: Research and applications (pp. 135-173). New York: Plenum.

Oates, M. R. (1979). A classification of child abuse and its relation to treatment and prognosis. Child Abuse and Neglect, 3, 907-915.

Parke, R. D., and Collmer, C. W. (1975). Child abuse: An interdisciplinary analysis. In E. M. Hetherington (Ed.), Review of child development research (Vol. 5, pp. 509-590). Chicago: University of Chicago Press.

Passman, R. H., and Mulhern, R. K., Jr. (1977). Maternal punitiveness as affected by situational stress: An experimental analogue of child abuse. Journal of Abnormal Psychology, 86, 565-569.

Patterson, G. R. (1982). Coercive family process. Eugene, OR: Castalia.

Patterson, G. R., Reid, J. B., Jones, R. R., and Conger, R. E. (1975). A social learning approach to family intervention (Vol. 1). Eugene, OR: Castalia.

Plotkin, R. C., Azar, S., Twentyman, C. T., and Perri, M. G. (1981). A critical evaluation of the research methodology employed in the investigation of causative factors of child abuse and neglect. Child Abuse and Neglect, 5, 449-455.

Polansky, N. A., Hally, C., and Polansky, N. F. (1975). Profile of neglect: A survey of the state of knowledge of child neglect. Washington, DC: Community Services Administration, Social and Rehabilitation Services, DHEW.

Reid, J. B., Taplin, P. S., and Lorber, R. (1981). A social interactional approach to the treatment of abusive families. In R. B. Stuart (Ed.), Violent behavior: Social learning approaches to prediction, management and treatment (pp. 83-101). New York: Brunner/Mazel.

Rosenberg, M. S., and Reppucci, N. D. (1983). Abusive mothers: Perceptions of their own children's behavior. Journal of Consulting and Clinical Psychology: 51, 674-682.

Ross, C. J. and Zigler, E. (1980). An agenda for action. In G. Gerbner, C. J. Ross, and E. Zigler (Eds.), Child Abuse: An agenda for action. (pp. 293-304). New York: Oxford.

Rule, B. G., and Nesdale, A. R. (1976). Emotional arousal and aggressive behavior. Psychological Bulletin, 83, 851-863.

Salzinger, S., Kaplan, S., and Artemyeff, C. (1983). Mothers' personal social networks and child maltreatment. Journal of Abnormal Psychology, 92, 68-76.

Sloan, M. P., and Meier, J. H. (1983). Typology for parents of abused children. Child Abuse and Neglect, 7, 443-450.

Spinetta, J. J. (1978). Parental personality factors in child abuse. Journal of Consulting and Clinical Psychology, 46, 1409-1414.

Spinetta, J. J., and Rigler, D. (1972). The child-abusing parent: A psychological review. Psychological Bulletin, 77, 296-304.

Standing Senate Committee on Health, Welfare and Science. (1980). Child at risk (Cat. No. YC17-304/2-DIE). Hull, Quebec: Canadian Government Publishing Centre.

Starr, R. H., Jr. (1979). Child abuse. American Psychologist, 34, 872-878.

Starr, R. H., Jr. (1982). A research-based approach to the prediction of child abuse. In R. H. Starr, Jr. (Ed.), Child abuse prediction: Policy implications. Cambridge, MA: Ballinger.

Steele, B. F., and Pollock, C. (1968). A psychiatric study of parents who abuse infants and small children. In R. Helfer and C. Kempe (Eds.), The battered child (pp. 89-133). Chicago: University of Chicago Press.

Straus, M. A. (1980a). Stress and child abuse. In C. H. Kempe and R. E. Helfer (Eds.), The battered child (3rd ed., pp. 86-102). Chicago: University of Chicago Press.

Straus, M. A. (1980b). Victims and aggressors in marital violence. American Behavioral Scientist, 23, 681-704.

Straus, M. A., Gelles, R. J., and Steinmetz, S. K. (1980). Behind closed doors: Violence in the American family. Grand City, NY:Doubleday/Anchor.

Toro, P. A. (1982). Developmental effects of child abuse: A review. Child Abuse and Neglect, 6, 423-431.

Turner, R. J. (1982). Risk and prevention for maladaptive parenting: The family volunteer study. Toronto, Ontario: Ontario Ministry of Community and Social Services, Child Abuse Program.

Vasta, R. (1982). Physical child abuse: A dual-component analysis. Developmental Review, 2, 125-149.

Vasta, R., and Copitch, P. (1981). Simulating conditions of child abuse in the laboratory. Child Development, 52, 164-170.

Wahler, R. G. (1980). The insular mother: Her problems in parent-child treatment. Journal of Applied Behavior Analysis, 13, 207-219.

Wahler, R.G., and Graves, M.G. (1983). Setting events in social networks: Ally or enemy in child behavior therapy? Behavior Therapy, 14, 19-36.

Weinraub, M., and Wolf, B. M. (1983). Effects of stress and social supports on mother-child interactions in single- and two-parent families. Child Development, 54, 1297-1311.

Welsh, R. S. (1976). Severe parental punishment and delinquency: A developmental theory. Journal of Clinical Child Psychology: 5, 17-21.

Wolfe, D. A. (in press). Prevention of child abuse through the development of parent and child competencies. In R. J. McMahon and R. Peters (Eds.), Childhood disorders: Behavioral-development approaches. New York: Brunner/Mazel.

Wolfe, D. A., Fairbank, J., Kelly, J.A., and Bradlyn, A. S. (1983). Child abusive parents' physiological responses to stressful and non-stressful behavior in children. Behavioral Assessment, 5, 363-371.

Wolfe, D. A., Kaufman, K., Aragona, J., and Sandler, J. (1981). The child management program for abusive parents. Winter Park, FL: Anna.

Wolfe, D. A., and Mosk, M. D. (1983). Behavioral comparisons of children from abusive and distressed families. Journal of Consulting and Clinical Psychology, 51, 702-708.

Wolfe, D. A., and Sandler, J. (1981). Training abusive parents in effective child management. Behavior Modification, 5, 320-335.

Wolfe, D. A., Sandler, J., and Kaufman, K. (1981). A competency-based parent training program for child abusers. Journal of Consulting and Clinical Psychology, 49, 633-640.

Wright, L. (1976). The "sick but slick" syndrome as a personality component of parents of battered children. Journal of Clinical Psychology, 32, 41-45.

Zalba, S. R. (1967). The abused child: A typology for classification and treatment. Social Work, 12, 70-79.

Zigler, E. (1980). Controlling child abuse: Do we have the knowledge and/or the will? In G. Gerbner, C. J. Ross and E. Zigler (Eds.), Child abuse: An agenda for action (pp. 3-32). New York: Oxford.

Zillman, D. (1979). Hostility and aggression. Hillsdale, NJ: Erlbaum.

Zussman, J. U. (1980). Situational determinants of parental behavior. Effects of competing cognitive activity. Child Development, 51, 792-800.

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